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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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PATENTS@BELLBOYD.COM

Office Action Summary	Application No. 10/802,865	Applicant(s) RIVIERE ET AL.	
	Examiner Jyoti Chawla	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on October 30, 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-27 is/are pending in the application.
- 4a) Of the above claim(s) 17-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114 dated October 30, 2007, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's claims filed October 30, 2007 has been entered. Claims 1, 3 and 7 have been amended, and claim 28 has been cancelled, claims 17-27 remain withdrawn from consideration pertaining to a non-elected invention. Claims 1-5, 7-16 remain pending and are examined in the application.

Claim Rejections - 35 USC § 112

Rejection of claims 1-5, 7-16 under 35 U.S.C. 112, first paragraph have been withdrawn in light of applicant's amendments filed October 30, 2007.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-5, 7-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 is indefinite for the recitation of "the sweetening agent mixture comprises at least 90% of its weight of a sweetening component comprising glucose polymers and glucose...with the glucose polymers representing from 10 to 50% of the weight of the sweetening agent mixture and the glucose representing from 30 to 40% of the weight of the sweetening agent mixture, wherein the sweetening component constitutes from 6 to 30% of the total weight of the frozen dessert".

Thus as recited in the claim

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- i) at least 90% of the sweetening agent mixture is a sweetening component comprising glucose + glucose polymers and other sweeteners as the term comprising is open ended.
- ii) the claim further states that the glucose polymers represent 10-50% of the sweetening agent mixture, and glucose polymers have 30-40% by weight as glucose,

Thus based on the above information it is unclear as to what sweeteners comprise at least 40 to 80% of the sweetening agent mixture. If at least 90% of the sweetener comprises of glucose and glucose polymers, then it is unclear as to what proportion of the sweetening mixture comes as glucose because based on claim recitation glucose is 30-40% of 10-50% of sweetening mixture as part of glucose polymers, i.e.. glucose is 3-20% of the sweetening mixture as part of glucose polymers. It is unclear as recited as to what is the proportion, if any, of glucose by itself as part of sweetening mixture. In the absence of this information the claim as recited is unclear for the purposes of prior art comparison.

Claim 1 is further unclear for the recitation of relative terms "malleable" and "extrudable", as stated in the previous office actions dated April 5, 2007 and October 19, 2007, it is not clear as to what is the freezing temperature range and what standard of malleability is employed to establish if a frozen dessert product is adequately malleable according to the claim as recited. For the purposes of prior art comparison a frozen dessert composition with microcrystalline cellulose would be considered appropriate to read upon the instantly claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

(A) Claim 1-5, 7, 9-16 are rejected under 35 U.S.C. 103(a) as being obvious over Whelan et al (US 5,084,295) in view of Hilker (US 3128193).

The references and rejection are incorporated herein and as cited in the office action mailed October 19, 2007.

Regarding claim 1, Whelan et al, hereinafter Whelan, teaches a frozen dessert composition comprising of water, proteins, and fat, sweetening agents and stabilizing agents (Abstract and Column 6, lines 1-8, lines 31-38). Regarding the partially frozen water, Whelan teaches water, however, since the reference teaches a frozen dessert composition, the finished frozen product would comprise frozen water as recited. The sweetening agents as taught by Whelan include sucrose, glucose, fructose, maltose corn syrup, high fructose corn syrup, invert sugar, maple syrup, honey, brown sugar, refiner's syrup (i.e., liquid sugar or sucrose etc. Whelan further teaches addition of reduced calorie or no calorie sweeteners that replace the sweetening composition partially or completely (Column 12). The sweeteners taught by Whelan include glucose as discussed above and glucose polymers (corn syrup comprising dextrose/glucose) and polyols and high intensity sweeteners (Columns 8 and 12). Whelan teaches monosaccharides (glucose, mannose, galactose, fructose, sorbose (column 8, 46-47)) disaccharides (maltose, sucrose and lactose (Column 8, lines 51-53)), oligosaccharides and polysaccharides and sugar alcohols including those derived from xylose, arabinose,

ribose, methylglucoside (e.g., sorbitol, xylitol etc (Column 8, lines 25-38 and 48-50 and Column 12, lines 5-68)). The proportion of the nutritive or calorific sweetening mixture taught by Whelan comprises from about 10 to about 20% of the product (Column 12, lines 5-15) and the reduced calorie sugars comprise from about 10-20%. Thus Whelan teaches of a sweetening mixture comprising glucose and polymers including polyols, and high intensity sweeteners combined in the range of 10 to 40%, which falls in applicant's range (10-30%) as recited in claim 1.

Regarding the amount of glucose in the glucose polymer or glucose syrup, the corn syrup as taught by Whelan is has a value of 62 DE, i.e., depending on the method of hydrolysis of starch the glucose (dextrose) content of the corn syrup would vary from 36 to 39% on dry weight basis (as evidenced by Handbook of Industrial chemistry, pages 188-189 table 6.2). Based on the above information the glucose content of the glucose syrup lies within the 30-40% of the corn syrup (glucose polymers) content, as instantly claimed.

Regarding the amount of glucose polymers representing from 10-50% (claim 1) of the sweetening mixture of glucose and polymers as recited by the applicant, Whelan teaches addition of glucose, lactose, sucrose and other nutritive sweeteners from 10-20% of the dessert composition which falls in the recited range of the applicant. The reference also teaches replacing part or whole of the sweetener mixture with low calorie sweeteners such as sorbitol or Xylitol etc., or other high intensity sweeteners, such as, Acesulfame K in the range of 10-20% of the dessert composition. The reference further teaches that a combination of glucose, sucrose etc., with a low or no-calorie sweetener mixture can be used based on the calorie reduction benefit desired. The reference also teaches of varying the composition of the sweetener mixture in order to modify the caloric content of the final product. Thus the reference teaches of sweeteners, where glucose polymers, such as, low calorie sugar alcohols and sucrose and other polysaccharides are in the range of 0 to 100% of the sweetening composition. Thus Whelan reference reads upon the instantly claimed invention. However, the reference does not give any specific proportion of glucose and glucose polymers in the sweetener mixture. Therefore, one of ordinary skill in the art would be motivated to look to the art

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for specific proportions of sweeteners. Hilker et al, hereinafter Hilker, teaches of a low fat frozen dessert with an aqueous component and a fat component. The aqueous component comprises water, protein, sweetening agents, stabilizers and flavoring ingredients (Column 2, lines 9-31) as recited by the applicant in claim 1. The sweetening agents taught by Hilker are sucrose and corn syrup solids (Column 3, Lines 53-60, Example I). Sucrose is a polymer of glucose, with two molecules of glucose, i.e., $n=2$, as recited by the applicant in claim 1. Corn syrup solids are dextrose, i.e., glucose. Thus Hilker teaches the sweetener agents that are used together (i.e., a mixture) which comprise 100% of the sweetener mixture, which is in the recited range of (at least 90%) the applicant. Hilker teaches the frozen confection composition where 10-12% sucrose and 7.5-8% corn syrup solids, i.e., 17.5-20% sweetener (Columns 3 and 4, Examples I and II), i.e., 50% to 60% of the sweetener composition comprising glucose comprises of glucose polymers. Thus the amount of glucose taught by Hilker fall within the instantly claimed ranges for claim 1. From the references above one of ordinary skill in the art would have been able to ascertain that sweetener mixtures with glucose and glucose polymers were known at the time of the invention (Whelan and Hilker). Sweetener mixture with various combinations of glucose and polymers were known at the time of the invention (Whelan). Relative proportion of glucose and glucose polymers in the range recited by the applicant was known at the time of the invention (Hilker).

Thus sweetener mixtures with glucose and glucose polymers (corn syrups, corn syrup solids and dextrose and glucose were known at the time of the invention (Whelan and Hilker). Sweetener mixture with varying proportions of glucose and polymers were also known in making of ice cream type frozen confections, at the time of the invention (Whelan). Relative proportion of glucose and glucose polymers in the range recited by the applicant was known at the time of the invention (Whelan and Hilker). It was also known that glucose is less sweet as compared to sucrose and fructose on a weight basis. Further it was known that glucose provides cooling sensation in mouth when consumed. Thus it would have been a matter of routine determination by experimentation for one of ordinary skill in the art at the time of the invention to modify

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the sweetener composition based on the desire and availability of various sweeteners. Therefore, one of ordinary skill in the art at the time of the invention would have been motivated to modify Whelan and add sweetener comprising glucose and its polymers in the relative proportion as taught by Hilker, in order to make a frozen dessert with the desired combination of sweetening agents. One would have been further motivated to do so in order to have a hygroscopic sweetener component in the frozen dessert which would enhance the smoothness of the texture of the finished frozen product. One would have been further motivated to do so in order to make the frozen confection with an enhanced cooling effect in the mouth when consumed. Also a set proportion of glucose in the sweetener mixture would be able to provide a frozen dessert product with a certain degree of characteristic glucose sweetness irrespective of the other sweeteners used.

NOTE: The applicant is also referred to the 112 rejections above.

Regarding the stabilizing agents as recited in claim 1, Whelan teaches stabilizing agents including microcrystalline cellulose, locust bean gum, etc., in the frozen dessert composition. Microcrystalline cellulose is a highly purified particulate form of cellulose with a particle size range of 1-150 microns. Microcrystalline cellulose is used as a stabilizer/ emulsifier in foods. Whelan teaches that stabilizing agents produce smoothness in the textural properties of the product and retard ice crystal growth during storage of the product (Column 14, lines 39-55). The reference also teaches of emulsified particle size of 5 microns or less such that the frozen dessert produced has a smooth, creamy and non-gritty mouth feel (Column 7 and 14). The reference further teaches that the fat is emulsified in such a way as to give the final product the smoothness and creaminess of the conventional ice-cream products. The Whelan reference teaches of the stabilizers as recited by the applicants, in the recited range of the applicant. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the stabilizers as taught by Whelan would function in a similar fashion and act as the nucleating agents as in the instantly claimed invention, absent any clear and convincing evidence and arguments to the contrary.

Regarding claim 2, Whelan teaches of stabilizing agent comprising microcrystalline cellulose as recited. The amount of stabilizer included in the frozen dessert is up to 1%, typically from about 0.05% to about 0.5% (Column 14, lines 48-61), which falls within the instantly claimed range.

Regarding claim 3, Whelan teaches that the frozen dessert composition comprises water in the range from about 50 to about 75% (Column 14, lines 30-32), which encompasses applicant's recited range of 40-62%. Regarding the partially frozen water, Whelan teaches water, however, since the reference teaches a frozen dessert composition, the finished frozen product would comprise frozen water as recited.

Regarding claims 4-5, Whelan teaches of stabilizers including carrageenan and xanthan (gums or thickeners), alginate, gelatin, carboxymethylcellulose (CMC), etc., (Column 14, lines 48-55) which are well known in the art as thickeners. The reference also teaches the amount of suitable emulsifiers ranges from about 0.05 to about 2% (Column 14, lines 11-12) and optional ingredients such as egg yolk from about 1 to 2% of the frozen dessert product (Column 14, line 62 to Column 15, line 6). The reference further teaches that suitable emulsifiers are monoglycerides and diglycerides of fatty acids (Column 13, lines 60-68). Thus the reference teaches of emulsifiers and thickeners as recited by the applicant in the instantly claimed range of 0.3 to 2.7%.

Regarding claim 7, Whalen teaches of fructose as part of the sweetener composition (column 12, line 6). Whalen and Hilker are silent regarding the percentage of fructose being less than 1% in the sweetening mixture of the composition. However, glucose (dextrose), fructose and sucrose or sugar were known as sweeteners at the time of the invention. It was also known at the time of the invention that fructose is sweeter than sucrose, which in turn is sweeter than glucose on an equivalent weight basis. Therefore it would have been a matter of routine optimization experimentation for one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e. sucrose or glucose or fructose) for another (i.e., a sweetener

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with less than 1% fructose) in the frozen confection as disclosed by Whelan, depending on the desired level of sweetness in the frozen product. One would have been further motivated to include less fructose in order to make the frozen confection with less sweetness. One would have been further motivated to reduce the amount of fructose based on which sweeteners were more desirable and available at the time the invention was made. Thus claim 7 is obvious over Whelan in view of Hilker, absent any clear and convincing evidence and arguments to the contrary.

Regarding claim 9, Whelan teaches a fat content from about 2 to about 20% (Column 4, lines 58-60), which encompasses the instantly claimed range of 4-20%.

Regarding claims 10-11, Whelan teaches of suitable plant derived fats including sunflower oil, coconut oil, safflower oil and olive oil (Column 9, lines 1-10) as recited in claims 10 and 11. Sunflower oil, is a plant-based oil with the onset of solidification within the recited range of the applicant. The reference also teaches of milk fat, e.g., butter, (Column 7, lines 38-40) which is a soft solid at room temperature and thus has the onset of solidification at temperatures above 0°C as recited by the applicant.

Regarding claim 12, Whelan teaches proteins from about 3 to about 15% (Column 11, lines 27-29) as instantly claimed.

Regarding claims 13-14, Whelan teaches suitable proteins including, whole milk, skimmed milk, skimmed milk from which a portion of the lactose has been removed, sweet dairy whey, neutralized acid whey, modified whey, whey protein concentrate etc., (Column 11, lines 35-50). Although Whelan does not specifically teach demineralized whey, however, neutralized acid whey and modified whey as taught by Whelan would include demineralized whey because to produce demineralized whey, whey is modified by ion exchange or electrodialysis to remove the minerals (Wile's Encyclopedia of Food Science and Technology 1999, page 2655).

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Regarding claim 15, Whelan teaches of non-dairy based sources of protein, such as, soy protein (Column 11, lines 59-61). Soy is a leguminous plant, thus the reference teaches of leguminous protein source as instantly claimed.

Regarding claim 16, Whelan teaches a frozen dessert product with other components including flavoring substances (Column 13, lines 20-50).

(B) Claim 8 is rejected under 35 U.S.C. 103(a) as being obvious over Whelan et al and Hilker as applied to claims 1-5, 7, 9-16 and 28 above further in view of Cole et al. (US 4,452,824).

Whelan and Hilker have been applied to claims 1-5, 7, 9-16 above.

The references and rejection are incorporated herein and as cited in the office action mailed October 19, 2007.

Regarding claim 8, Whelan does not teach of glycerol in the frozen dessert product. Glycerol is a polyol or polyhydric alcohol that was known for its function for imparting softness to the frozen product. Thus one of ordinary skill in the art at the time of the invention would have been motivated to look to the art for a frozen dessert product with glycerol. Cole et al, hereinafter Cole, teaches a soft frozen dessert comprising low molecular weight polyhydric alcohols such as glycerol at a level of 1% to 5%(Column 2, lines 35-50), which encompasses applicant's instantly claimed range. The reference further teaches that glycerol in the amount taught functions as freezing point depressants to impart increased softness to a frozen product. Thus frozen dessert products with glycerol in the amount recited by the applicant were known at the time of the invention (Cole). It was also known that glycerol helped to depress the freezing point of the frozen product resulting in a softer frozen product (Cole). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Whelan and add glycerol in the amount taught by Cole in order to depress the freezing point of the product and make a softer and more malleable frozen dessert product.

(C) Claims 1-5 and 8-16 are rejected under 35 U.S.C. 103(a) as being obvious over Morley (US 4,427,701) in view of Cole et al (US. 4,452,824).

The references and rejection are incorporated herein and as cited in the office action mailed October 19, 2007.

Morley teaches a frozen dessert comprising water, proteins, fat, sweetening agents and stabilizing agents. The sweetening agents include fructose, corn syrup, etc at a range from 22 to 30% (Column 6 lines 26-37), which is within applicant's recited range. The stabilizing agents comprise microcrystalline cellulose, locust bean gum, guar gum etc (Column 7 lines 30-33). The particle size of the stabilizing agent, such as microcrystalline cellulose is small enough to act as a nucleating agent because it is well known that microcrystalline particles have very small particle sizes. In addition it would be expected that the water in the frozen dessert is frozen. Morley is silent about the relative amounts of each component in the sweetening mixture. However, blending of sweeteners is well known for their art recognized function. It would have been obvious to one of ordinary skill in the art to expect that the amount of sweetener included is an experimental result variable based on sweetness intensity of the particular sweetener and the sweetness effect desired in the product absent any clear and convincing evidence and/or arguments to the contrary.

Regarding claim 2, Morley discloses microcrystalline cellulose as a stabilizing agent. The amount of stabilizer included in the frozen dessert is typically from about 0.05 to about 1.1%, this range is within applicant's recited range (col 6 line 68, col 7 lines 1-2).

Regarding claim 3, Morley discloses that the amount of water present is from about 50 to 60%, this range is within applicant's recited range (col 5 lines 66-67). It would be expected that the water is partially frozen/frozen because it is utilized in a frozen dessert.

Regarding claims 4-5, Morley teaches suitable emulsifiers from 0.45 to 0.775% (Column 7 lines 39-40) such as mono and di-glycerides. This range is within applicant's recited range. Morley teaches that the stabilizer system employs gelling agent such as gelatin,

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carrageenan, sodium alginate etc (col 7 lines 22-26) that are well known in the art as thickeners.

Regarding claim 8, Morley does not teach of glycerol in the frozen dessert product. Glycerol is a polyol or polyhydric alcohol that was known for its function for imparting softness to the frozen product. Thus one of ordinary skill in the art at the time of the invention would have been motivated to look to the art for a frozen dessert product with glycerol. Cole et al, hereinafter Cole, teaches a soft frozen dessert comprising low molecular weight polyhydric alcohols such as glycerol at a level of 1% to 5%(Column 2, lines 35-50), which encompasses applicant's instantly claimed range. The reference further teaches that glycerol in the amount taught functions as freezing point depressants to impart increased softness to a frozen product. Thus frozen dessert products with glycerol in the amount recited by the applicant were known at the time of the invention (Cole). It was also known that glycerol helped to depress the freezing point of the frozen product resulting in a softer frozen product (Cole). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Morley and add glycerol in the amount taught by Cole in order to depress the freezing point of the product and make a softer and more malleable frozen dessert product.

Regarding claim 9, Morley teaches a fat content from 0 to 5% (col 5 line 15-17). This range is within applicant's recited range.

Regarding claims 10-11, Morley teaches suitable fats including butter fat, sunflower oil, coconut oil, safflower oil, olive oil that are all plant derived (col 5 lines 24-37).

Regarding claim 12, Morley teaches proteins from 4 to 5.5% (col 5 lines 62-63). This range is within applicant's recited range.

Regarding claims 13-14, Morley teaches suitable proteins including, milk, neutralized acid whey, modified whey, whey protein concentrate etc (Column 5 lines 50-65).

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Modified whey encompasses demineralized whey because demineralized whey is a known modified whey product.

Regarding claim 15, Morley is silent about the leguminous protein in the frozen confection, however, Cole teaches of non-dairy based sources of protein, such as, soy protein (Column 5, lines 55-65). Soy is a leguminous plant, thus the reference teaches of leguminous protein source as instantly claimed. Thus leguminous sources of protein were known to be added to the frozen confections as taught by Cole. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley in view of Cole and add soy based protein as part of the protein component in the frozen dessert composition. One would have been motivated to do so in order to add a relatively inexpensive and readily available source of protein to the frozen confection to attain a desired level of overrun in a cost effective manner.

Regarding claim 16, Morley discloses other components of the frozen dessert product including flavoring substances (Column 6 lines 5-16).

Regarding the newly added limitations to claims 1 and 7 Morley teaches of sweeteners like corn syrup, corn syrup solids and dextrose (glucose) in varying amounts in the sweetening mixture for the frozen confection (Column 6, lines 33-58). Morley teaches that part of sorbitol can be replaced with dextrose (glucose). Morley also teaches of 8.5% 36 DE corn syrup solids (contain about 10% glucose) and 12.5% sorbitol (Column 9, Example 1). In another example Morley also teaches of 7% 36 DE corn syrup solids and 3.8% 24 DE corn syrup solids and 12.2% sorbitol (Column 10, Example 2), thus the reference teaches of varying amounts of dextrose or glucose. Morley also teaches of varying amounts of fructose 3.8-4.3% of the composition (Columns 9-10, examples 1 and 2). Morley also teaches of blending of sweeteners in accordance with the properties desired in the finished product, e.g., in fat free compositions, corn syrup with low DE is added in addition to the regular corn syrup (Column 6, lines 38-44). Thus altering the sweetener amount and also the kind of sweetener based on the characteristics desired

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in the finished product was well known in the art at the time of the invention. Therefore, it would have been a matter of routine experimentation and determination for one of ordinary skill in the art to modify Morley and alter the sweetener mixture by increasing the amount of (glucose) dextrose to 30-40% of the sweetener composition and also decreasing the amount of fructose in the sweetener to less than 1% of the sweetener mixture in order to make the finished product with the desired flavor, texture or intensity of sweetness. One of ordinary skill would have been motivated to do so in order to make the finished product with desirable taste and texture without excessive sweetness (e.g., of fructose and some non-nutritive sweeteners) or an undesirable aftertaste. Therefore, modifying the relative amounts of sweeteners in the frozen confection composition does not lend patentable distinction to the claims, absent any clear and convincing evidence and/or arguments to the contrary.

Response to Arguments

Applicant's arguments filed October 30, 2007, regarding the rejection of claims 1-5, 7-16 have been fully considered but have not been found persuasive.

Regarding the claim rejections under 35 USC 112, applicant is referred to the office action above.

I) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the "spoonable character" and "capacity to be distributed by the nozzle of a pressurized container" as stated in Remarks, page 10) are not recited in the rejected claim(s).

Similarly applicant's statement "Therefore, it becomes possible to use whole milk as a source of proteins, for example, and no longer only skimmed milk, as was the case in previously known frozen desserts. The fat in the milk can now partially replace the fat having an onset of solidification temperature of less than 0 °C." (Remarks, page 12) has not been recited in the rejected claims.

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Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

II) In response to applicant's arguments against the references individually (Remarks, pages 12-15), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case Whelan in rejection (A) and Morley and Cole in rejection (C) teach of a frozen confection composition with sweetener, water, protein, fat, emulsifier, thickeners and stabilizing agents in the instantly claimed ranges. The references also teach of glucose polymers and glucose (dextrose), and glucose syrup as part of the sweetener composition, where the amount of glucose falls in the instantly claimed range.

Regarding applicant's argument that Hilker does not teach of glucose or glucose polymers (Remarks, page 12), applicant is referred to the office action above and also to Hilker Columns 3 and 4 where Hilker teaches of corn syrup solids, i.e., dextrose or glucose in the amounts ranging from 7.5-8% of the frozen confection which falls in the instantly claimed range of 6-30% for the total sweetener and 1.8 to 12% for glucose as discussed in the office action above. Thus the reference also teaches that higher proportion of glucose was known to be used as sweetener in the art of making frozen confections. Thus the references teach of frozen confections with glucose content in the instantly claimed range.

Regarding fructose Whelan teaches of sweetener comprising fructose, however Whelan does not teach of fructose comprising less than 1% of the sweetener as instantly claimed, however, fructose and glucose have been known in the art for their respective sweetness characteristics, therefore to substitute one functional equivalent for another would have been a matter of routine determination for one of ordinary skill at the time of the invention. Therefore using more glucose and less fructose in a frozen confection

composition does not impart patentable distinction to the claims absent any clear and convincing evidence and/or arguments to the contrary.

III) Regarding applicant's response that the references do not teach glucose representing 30-40% of the glucose polymers in the sweetening agent mixture (Remarks, page 13), the applicant is referred to the rejections under 35 USC 112 and 35 USC 103(a) above.

IV) In response to applicant's argument that the Whelan reference teaches of more glucose than the range recited in claim 1 (Remarks, page 13), applicant is referred to the claim where at least 90% of the sweetening mixture comprises of glucose and glucose polymers and out of that 10-50 are glucose polymers making at least 40-80% glucose. Further claim states that 30-40% of the glucose polymer content is glucose, which further adds 3-20% glucose, thus increasing the glucose content to at least 43 to 100% of the sweetening composition as recited. Thus applicant's calculation differs from the recitation of claim 1 in the total glucose content in the sweetening composition and the art of record is still applicable, absent any clear and convincing evidence and or arguments to the contrary.

V) Applicant's argument that "recited ranges as claimed in the independent claim 1 achieve unexpected results relative to the prior art range" (Remarks, page 9 and page 11) has not been found persuasive because the prior art references (Whelan and Hilker) include glucose amounts that fall within the instantly claimed range of claim 1. Thus if the amount of total sweetener and relative amount of glucose in the frozen confection in the prior art is in the recited range, then the sweetening and texturizing effects of glucose in the prior art would also be similar to the ones in the instantly claimed invention. Therefore, one of ordinary skill would not only have motivation to add glucose in the instantly claimed range but also have a reasonable expectation of success of achieving the textural and sweetening characteristics similar to the instantly claimed invention, absent any clear and convincing evidence and or arguments to the contrary.

VI) Applicant's arguments regarding Morley have also been considered and responded to in the office action above.

Therefore, applicant's arguments have been considered and have not been found persuasive and the claims 1-5, 7-16 remain rejected for the reasons of record.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Chawla whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Jyoti Chawla
Examiner
Art Unit 1794


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